**The Core and MORE Instruction Checklist**

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| **The CCSS Standard:**  **The Envision Lesson: Topic 17-6 Problem Solving: Use Objects 17-** | |
| **EXPLICIT INSTRUCTION**  **I do it, We do it, Y’all do it, You do it** | **ENGAGEMENT**  **All Students Saying, Writing, Doing** |
| **PROACTIVE PLANNING** | **VOCABULARY WORDS** |
|  | Pentomino, area, arrangement, perimeter |
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| **ANTICIPATORY SET** (5 MINUTES) | |
| MINI MATH REVIEW  1. 32 x 3  2. What is the reciprocal of 3/8?  3. A motorcycle was driving at 64mph and passed a bus that was driving 47 mph. About how much faster was the motorcycle?  4. Write 2 4/5 as an improper fraction.  5. How many grams is 20 kilograms?  6. Using pictures, how could you show one-half of 2/3?   * Daily Spiral Review 17.6 * Problem of the Day 17.6 | * Choral Responses * Partner Responses * Written Responses * Random call on students (No hand raising) |
| **BUILDING A FOUNDATION** (5-10 MINUTES) | |
| *The Language of Math*: Vocabulary instruction  Vocabulary: area, arrangement, pentomino, perimeter   * Display five tiles under a document camera and pose the question: *If each tile represents a table, how many different arrangements can be made? How many people would be able to sit at the tables in each arrangement?* * Discuss how the arrangement affects the area of the tables and the perimeter of the tables. * Display a triangle, quadrilateral, and a pentagon. Underline and discuss the meanings of the prefixes tri-, quad-, and pent-. * Explain: *Today we will be working with PENTOMINOES. Based on the prefix, what do you think is the AREA of a pentomino?* (Five units). * Explain that a pentomino is “an arrangement of five identical squares each having a common side with at least one other square”. * Explore some examples and non-examples. | * Choral Responses * Partner Responses * Written Responses * Random call on students (No hand raising) |
| **WHOLE GROUP INSTRUCTION: Concrete** (10-15 MINUTES) | |
| *Develop the Concept: Interactive Learning (Hands-on)*   * Distribute 5 color tiles and a sheet of ¼-inch grid paper to each student. * Pose the question: *How many different ways can you put your five tiles together so that each square has at least one common side with another square?* * *How many ways did you find?* * *Why do you think you have found all the ways to arrange the tiles?* * *What strategy could you have used to solve this problem?* * *Was it helpful to use the tiles?* | * Choral Responses * Partner Responses * Written Responses   + Paper   + Math Journal   + Individual Whiteboards   + Student page from the topic pouch * Random call on students (No hand raising) |
| **SCAFFOLDED INSTRUCTION: Representational** (15-20 MINUTES) | |
| *Develop the Concept: Visual*   * Students record the ways they found on grid paper. * As a class, create a list of how many arrangements each student found. * Using the data, create a frequency table and histogram. | * Choral Responses * Partner Responses * Written Responses * Random call on students (No hand raising) |
| **INDEPENDENT PRACTICE: ABSTRACT (**15-20 MINUTES) | |
| *Independent Practice* and *Problem Solving*   * Practice 17-6 * Independent Practice Question (p. 444-445 #5-20) | * Choral Responses * Partner Responses * Written Responses * Random call on students (No hand raising) |
| **FORMATIVE ASSESSMENT** (5-10 MINUTES) | |
| * Quick Check 17-6 | |
| **CENTER ACTIVITIES** (15 - 45 MINUTES)  \*This part of the lesson is beneficial for providing engaging activities while the teacher works with small groups of students who need supplemental instruction. | |
| * On-Level Center Activity (p.447B in Teacher Edition) * Online Resource: www.scholastic.com/blueballiett/games/pentominoes\_game.htm | |
| **HOMEWORK** | |
| Leveled Homework | |

\*Chasing Vermeer by Blue Balliet is a GREAT read aloud or anticipatory set for using pentominoes!